It is the idea of the Bureau of Fisheries to have the investigation conducted along practical lines and to have care taken to gain as full information as possible on all subjects pertaining to the mackerel fishery. In order to test thoroughly the fishing grounds, trials will be made by hand lines and gill nets when practical and a masthead lookout, as on a regular seiner, will be kept whenever the weather permits, for observing the movements of the fish. ing the movements of the fish.

ing the movements of the fish.

Full reports concerning each locality visited and complete data regarding location where fishing trials are made will be kept, abundance or scarcity of fish noted, weather conditions, direction and force of the wind, presence of mackerel feed, various species of birds seen, presence of sharks, dogfish, etc.—all are to be noted. The number of mackerel taken at each set or handline trial are to be recorded, also their size, quality and sex, as well as the development of the spawn or milt, also the number and estimated size of mackerel schools observed daily and the direction in which they travel.

It will be seen by this that there will not be a chance for many idle minutes on the Grampus during the coming trip, for in addition to these many things laid down in Capt. Cook's school of the Capt. However, here were the cook of the capt. schedule, Capt. Hanson has many routine and added duties of his own, so that the Grampus will be a veritable

hive of industry.

The Bureau of Fisheries is very desirous of having all trades, organizations and newspapers, as well as individuals, at fishing centres such as Gloucester, Boston, Portland, New York, Provincetown, Newport, etc., who may be interested in the work of the cruise,

Receive by Telegram Such Information of Value

as Capt. Cook may have whenever the Grampus makes a port and to this end has authorized him to confer with Arthur L. Millett, local agent of the Bureau of Fisheries here, to arrange with him some equitable and proper method of giving out and spreading this information with the idea of giving it the widest possible publicity. The bureau, however, cannot be at any vacuum for the transmission of small expense for the transmission of such information. Capt. Cook and Mr. Millett have arranged a publicity plan, which if approved by Commissioner of Fisheries Bowers will be made public in a few days and will give all interested an opportunity to receive the Grampus news at practically the same

As the time for the sailing of the Grampus draws near, the interest in the cruise and its object is growing greatly. Both Capt. Cook and Capt. Hanson are enthusiastic and eager to sail, and it may be depended that both will work hard and long to make the trip the success all here so earnestly hope it will be.

April 6.

No Arrivals Here.

There are no arrivals here this morning, indeed there have been only three vessels here with fares since the month came in.

Vessels Sailed.

Sch. Teresa and Alice haddocking. Sch. Walter P. Goulart, haddocking.

Sch. Buema, haddocking. Sch. Romance, south seining. Sch. Hattie M. Graham, south sein-

Sch. Cynthia, south seining. Sch. Lucania, south seining.

Today's Fish Market.

Salt Georges cod, large, \$3.50; me-

diums, \$3.00.

Bank halibut, 8 1-2 cents per pound for white and 6 cents per pound for Salt pollock, \$1.00; salt haddock,

\$1.00; salt hake, \$1.00. Splitting prices for fresh fish, Western cod, large, \$1.65; mediums, \$1.40; Eastern cod, large, \$1.55; medium, \$1.30; cusk, \$1.50; for large, \$1.10 for medium and 50c for snappers; haddock, 60c; hake, 60c.

Trawl bank cod, large, \$3.25; medium, \$2.75; snappers, \$1.50.
Salt cusk, large, \$2.50; mediums,

\$2.00; snappers, \$1.00. Shore frozen herring for bait, \$2.00

to \$2.50 per cwt.

Round pollock, 50 cts. per cwt. Newfoundland frozen herring, for bait, \$2.50 to \$3.00 per cwt.

Fishing Fleet Movements.

Capt. Thomas Selig will command sch. Galatea in the Rips fishery this

Capt. Edward Russell, who has been in sch. Galatea for some seasons, is at this port to fit out the new sch. Alice for market fishing.

Capt. John McCune will fit sch. Rob. Roy for south seining.

April 6.

Sch. Slade Gorton, Capt. George Heckman, will now haul out of had-

docking and fit for south seining. Sch. Vanessa, Capt. Val O'Nell, will now fit for fresh halibuting.

Harbor Notes.

Sch. Volante is on the Rocky Neck

Sch. Mina Swim is on Burnham's railways.

Boston Arrivals.

Sch. Julietta, 5000 haddock, 1000 cod,

Sch. Ida S. Brooks, 12,000 haddock, 1000 cod.

Sch. Thomas S. Gorton, 67,000 had-dock, 10,000 cod, 1000 cusk.

Sch. Mary E. Cooney, 18,000 had-dock, 2000 cod.

Sch. Georgianna, 3000 cod. Sch. Mary T. Falion. Sch. Hattle F. Knowlton, 5000 haddock, 1000 cod.

Sch. Emily Sears, 8000 haddock. Sch. Emerald, 4000 haddock, 1000 Sch. Mabel Bryson, 2000 haddock, 3000 cod.

3000 cod.
Sch. Washakie, 11,000 haddock, 2000 cod. 1500 pollock.
Sch. Manomet, 11,000 haddock.
Sch. Slade Gorton, 45,000 haddock, 10,000 cod, 5000 cusk.
Sch. Joseph P. Johnson, 9000 haddock, 18,000 cod, 1000 pollock.
Sch. Lillian, 70,000 haddock, 8000 cod.

Sch. Matiana, 10,000 haddock, 1000 cod. cod.

Sch. Valentinna, 8000 haddock, 1000 cod.

Seh. Ida M. Silva, 12,000 haddock.

Sch. Scout, 500 haddock, 1500 cod. Sch. Eva Avina, 1200 cod.

Sch. Eva Avina, 1200 cod.
Sch. Gracie, 2000 cod.
Sch. Marion, 4000 cod.
Sch. Sylvester, 4000 cod.
Sch. Hobo, 3000 cod.
Sch. Freedom, 1000 cod.
Sch. Mary Emerson, 3000 cod.
Sch. Mary Emerson, 3000 knddeck

Sch. Mettacomet, 2000 haddock, 2000 Sch. Arthur Binney, 40,000 haddock,

25,000 cod. 25,000 cod.

Haddock, \$1.50 to \$2 per cwt.; large cod, \$4.75 to \$5; market cod, \$2.75 to \$3.50; pollock, \$2; cusk, \$1.25.

Alewives at Edgartown.

Alewives are now running in good shape at Edgartown, and fine catches have been made.

The Times correspondent under date of April 3, writes that 40 barrels were taken that day at one haul. Last sales at New Bedford were \$1.50 per hundred.

The fish are of large size, and the runs are very regular this season.

No vessels have yet arrived at Ed-

gartown for a baiting, so all the fish caught have to be sent to the main land to market.

Portland Arrivals.

Steamer Elthier was at Portland Sunday with 5500 pounds of fresh fish.

Trial Trip.

The new sch. Mary DeCosta will go out on her trial trip today.



CAUGHT HALIBUT BY TAIL.

Fish Struck Hook and Was Unable to Free Itself.

Among the fish brought in by sch. Thomas S. Gotton, Capt. William H. Thomas, which was at Boston yester-day, was a halibut weighing about 150 pounds, which was caught in a strange manner, and actually drowned itself. When the trawl on which it was taken was hauled up, the big halibut was found hanging to one of the hooks ny its tail with a good part of the rest of the line wound about its body. It had struck its flat tail against the point of the hook, which cut through the flesh, and in throwing itself about in an effort to escape the fish wound the strong line about its body.

SALT CARGO DELAYED.

Steamer Put Into Halifax for New Supply of Coal.

With her bunkers almost empty, the Danish steamer Michael Ontchoukoff, bound from Iviza for this port with a cargo of salt, put in at Halifax yesterday to get a new supply of coal. The steamer left Iviza March 12 and met with such heavy weather, espe-cially during Saturday and Sunday last, that she was greatly delayed and was obliged to consume much extra

The steamer has a large cargo, con-

signed to Fred Bradley.

April 7.

FISH GLUT AT T WHARF.

Many Fares Will Come to This Port for the Splitters.

A regular summer duliness has struck T wharf, Boston, and fish fares are practically going begging there today, in consequence of which quite a lot of fish is looked for here to split before tomorrow morning.

At the fish wharf, when the bell rang this morning were 36 fares of all sizes, from the 3000 or 4000 pound trip of some little day by day shore boat, up to the fine 85,000 pound trip of sch. Yakima, Capt. Robert Wharton, one of the big off-shore craft.

of the big off-shore craft.

There were five others of the off-shore fleet there also, schs. Josie and Phebe, Raymah, Catherine and Ellen, Rex and James W. Parker. The dealers wanted really but few if any fish at all, and they would hardly look at the off-shore chaps. Indeed at 8.30 o'clock lots of the market boats still had their trips unsold. trips unsold.

trips unsold.

Some of these market tenders had large fares, sch. Mary C. Santos of the Provincetown fleet being high line with a fine catch, 43,000 pounds, sch. Mary E. Silviera had 20,000 pounds, sch. Elizabeth W. Nunan 35,000 pounds, sch. Matchless 26,000 pounds and sch. Belbina P. Domingoes had 26,000 pounds. A number had from 10,000 to 15,000 pounds, while about a dezen had from the former figure down to 3000 or 4000 pounds.

Sch. Lillian, with her big fare of almost 90,000 pounds, left T wharf this morning to bring her fare here to the splitters and others are expected to follow her example before the day is through.

is through.

Haddock, what few were sold, brought from 75 cents to \$1.50 per hundred weight and large cod from \$2.50 to \$3.50. There was no sale for off-shore market cod, the shore fish beinging \$1.50 bringing \$1.50.

Alewives are coming from Vineyard Haven and New Bedford in good quantities, and Connecticut fishermen send more and more each shipment. Shad are short in New York, and even the new venture of getting it direct to Boston by express from the south does not give this market enough to make the price as low as the dealers would the price as low as the dealers would like to have it.

April 7.

WORST STORM OF WINTER.

Experienced on La Have Bank Last Saturday.

Capt. William H. Thomas of sch. Thomas S. Gorton and the others who were down to La Have with him say that last Saturday they experienced one of the worst storms of the winter. The storm began about noon, and its. greatest fury lasted about four hours, but it was not entirely over until af-ter 10 o'clock that night. Capt. Thomas' men had just got back to the vessel with their dory loads of fish when the storm broke, and escaped its danger.

Catfish Drove Away Other Fish.

Sch. Mary E. Cooney, which has been making from two to three trips a week for some time, was at Boston yesterday morning. She left T wharf last Saturday afternoon, and fished flown at Jeffries Bank. While there While the men set their trawls on what is known as the "stone wall," and the catfish were so numerous there that they drove other fish away, and forced the men to reset elsewhere. Capt. Cooney brought in 500 pounds of catfish, and threw away several thousand pounds. The schooner Joseph P. Johnson had 1200 pounds of catfish, but the demand for them so early in the week was not good.

Halibut Sale.

The halibut fare of sch. Cavalier sold to the New England Fish Co. and that of sch. Paragon to the American Halibut Co., each at 8 1-2 cents per pound for white and 6 cents for gray.

Buoy Replaced.

The buoy tender Mayflower has replaced the inner Ten Pound Island buoy, which was broken, with a new

Receipts at This Port and Boston During the Year 1908.

Total Value Between Four and Five Million Dollars.

The Bureau of Fisheries has just from each of the various grounds at published its report of fish landed at this port and Boston for the year 1908, from which the following tables are an extract and will be found of considerable local interest:

The report shows the amount of fish landed here and at Boston for each month in the year, also the amounts of the leading species and the values thereof.

The report also shows the number of trips landed at this port and at Boston, also the various grounds on which the fish were caught, and the number of trips from each ground, with the amount and value of fish port by menths is as follows:

The report of the bureau shows the amount of fish landed by American fishing vessels of over five tons register and does not include the amounts landed by the "small shore

boats" under the size above stated.

The report does not take any account of fish landed here by British. or any foreign crafts, neither does it include the cured fish, smoked her-ring, etc., landed here. It shows the actual landing of fresh and salt fish

| | | | 1 |
|----------------------------------|------------|-------------|-------------|
| Glouceste | | | |
| 4.000440 | Trips. | Pounds. | Value. |
| January | 48 | 5,710,502 | \$124,948 |
| February | 50 | 1,166,837 | 50,468 |
| March | 85 | 3,597,405 | 80,435 |
| April | 62 | 1,666,401 | 34,972 |
| May | 294 | 5,277,206 | 109,243 |
| June | 313 | 11,746,311 | 328,213 |
| July | 288 | 9,962,184 | 247,139 |
| August | 201 | 8,823,086 | 194,553 |
| September | 163 | 11,329,672 | 264,462 |
| October | 318 | 11,846,374 | 305,206 |
| November | 140 | 7,859,171 | 187,474 |
| December | 105 | 6,820,418 | 137,302 |
| Total landed at Gloucester | 2,067 | 85,805,567 | \$2,064,415 |
| Boston. | | | |
| January | 242 . | 4,802,050 | \$171,646 |
| February | 318 | 6,616,550 | 183,584 |
| March | 438 | 9.146.100 | 224,008 |
| April | 484 | 6,030,900 | 192,736 |
| May | 333 | 5,469,900 | 127,833 |
| June | 341 | 10,254,425 | 341,623 |
| July | 400 | 9,883,785 | 318,008 |
| August | 304 | 8,327,200 | 205,800 |
| September | 432 | 12,226,020 | 244,211 |
| October | 442 | 9,895,300 | 223,977 |
| November | 400 | 6,114,100 | 162.094 |
| December | 408 | 6,893,350 | 169,490 |
| | 1110 | 95,659,680 | \$2,565,010 |
| Total landed at Boston | | 30,000,000 | \$2,000,010 |
| Totals | Carlo Syla | 0. (3) | The said of |
| Grand total | 6,609 | 181,465,247 | \$4,629,425 |
| Ground E. of 66 degrees W. Long | 610 | 53,523,469 | \$1,657,688 |
| Grounds W. of 66 degrees W. Long | 5,999 | 127,541,778 | 2,971,737 |
| Landed at Boston in 1907 | 4,383 | 88,111,336 | 2,671,313 |
| Landed at Gloucester in 1907 | 2.702 | 103,460,416 | 2,591,790 |

| \$34575EE | MINISTREE PROPERTY. | 17187 STORE | | 7 | - |
|-----------|---------------------|-------------|----------|-----------|---------------|
| | No water to | Sept. 5.735 | Seller . | 3 S B 324 | 60 F (746)251 |
| - | 2.2.3F5.NH5+5k | 2000 | 100 | | 36400.36 |
| | ouces | tor | - Ra | COL | nte |

| The receipts of Gloucester | included |
|------------------------------|-----------|
| the following varieties: | |
| Fresh Cod 13,286,077 | \$250,862 |
| Salt Cod 21,832,454 | 762,801 |
| Fresh Cusk 3,457,399 | 56,522 |
| Salt Cusk 140,772 | 3,531 |
| Fresh Haddock 7,603,365 | 89,466 |
| Salt Haddock 640,507 | 9,729 |
| Fresh Pollock 6,141,926 | 47,600 |
| Salt Pollock 1,090,205 | 16,364 |
| Fresh Halibut 2,875,802 | 205,957 |
| Flitched Hallbut 946,558 | 66,263 |
| Fresh Mackerel 1,085,510 | 75,469 |
| Salt Mackerel 3,200,600 | 158,416 |
| Fresh Hake 7,968,350 | 64,522 |
| Salt Hake 122,442 | 1,833 |
| Other Fresh Fish . 7,464,804 | 131,078 |
| Other Salt Fish 7,948,796 | 124,002 |
| Total Fresh Fish .49,883,233 | 921,476 |
| | |

Total Salt Fish ... 35,922,334 \$1,142,939 The fish were caught on the following grounds:

Toot of ce ac

| Targe of an deliber | w. longitude. |
|---------------------|--------------------|
| | s. Pounds. Value. |
| La Have Bank 68 | 5,789,554\$111.044 |
| Western Bank 60 | 5,012,004 117,270 |
| Quero Bank 83 | 10,185,630 365,429 |
| Green Bank 3 | |
| Grand Bank 24 | 3,647,696 130,146 |
| St. Peters Bank . 6 | |
| Burgeo Bank 1 | 50,650 2,346 |
| Bacalieu Bank 31 | 2,982,147 135,705 |
| Off Newfound- | |
| land 39 | 11,254,461 218,802 |
| Cape North 14 | 2,041,722 42,667 |

..... 82 3,842,660 150,970 Gulf of St. Law-...... 27 1,279,343 84,165 The Gully 6 140,377 10,749 West of 66 degrees W. longitude.

Brown's Bank ... 62 3,113,913 62,507 Georges Bank ... 316 13,181,046 289,427 Cashes Bank 42 2,425,998 25,572 Fippenies Bank .. 1 147,815 2.095

| the second second second second | |
|---------------------------------|--------------------|
| Jeffreys Ledge 36 | 1,056,105 9,143 |
| South Channel 50 | 2,441,122 34,155 |
| Nantucket Shoals 194 | 4,617,317 131,783 |
| Bay of Fundy 3 | 448,330 4,154 |
| Block Island 9 | 109,420, 2,510 |
| South 8 | |
| Shore, general902 | 11,786,982 116,655 |
| | |

Boston Receipts.

| The receip | es at Doston menden t | THE |
|-----------------|-------------------------|-----|
| following vari | | |
| | Pounds. Valu | e. |
| Fresh cod | | 1 |
| Fresh cusk | 1,609,100 32,20 | 14 |
| Fresh haddoc | k 39,814,500 1,027,86 | 6 |
| Fresh hake | 12,466,100 214,78 | 0 |
| Fresh pollock | 6,286,800 87,56 | 8 |
| Fresh hallbut | 303,450 26,67 | 7 |
| Fresh macker | el 4,422,310 233,12 | 5 |
| Salt mackerel | | |
| Other fresh fl | | 0 |
| Other salt fis | h 680,000 12,60 | 0 |
| Total fresh fis | | |
| Total salt fish | h 946,600 30,69 | 9 |
| | re caught on the follow | |
| ing grounds: | | |

East of 66 deg. W. Longitude. La Have Bank ... 14 551,900 \$17,373 Western Bank ... 49 2,178,200 Off Newfoundland 3-1 60,000 3 720,000 4,200 17,100 Cape North 13 494,000 11,869 Cape Shore 86 3,450,450 156,893 Cape North 13

West of 66 deg. W. Longitude. Browns Bank 77 3,719,900 105,278 Georges Bank ...515 19,727,860 524,045 Cashes Bank 15 405,500 9,016 Clark Bank 9 11,800 Fippenies Bank ... Middle Bank512 5,807,700 169,331 Jeffreys Ledge ...318 4,014,500 92,912 ..718 26,871,100 591,738 South Channel Nantucket Shoals 316 7,594,525 241,994 Off Highland Light 55 Off Chatham127 2,642,800 Shore, general ...1,709 16,159,545 448,576

April 7. SAVING THE SHELL FISH-

ERIES, Experiments Conducted

by the Fish and Game Commission.

Plan Tried Successfully at Essex.

am Farm Could be Made a Profitable as Wheat

Farm.

With the intention of preventing the rapid decrease in the shell fisheries of Massachusetts, particularly and quahaugs, and to restock in great measure, the flats formerly productive but now barren, the fish and game commission of Massachusetts has for the past three years been conducting an extensive and valuable series of experiments.

According to statistics furnished by the fish and game commission, the approximate annua! income to chusetts fishermen from the shell fishamount is taken from a productive rea of about 26,000 acres. Under the present methods of production, the average value per acre is only \$28, and if properly farmed, the commission be-lieve that the annual production per acre should be at least \$200.

The experiments have been conducted under the direction of David L. Belding, biologist of the fish and game commission, assisted by Ferdinand C. Lane. The former is a Williams graduate, and has made a very exhaustive study of existing conditions.

The general decline of the shell fisheries of Massachusetts is a matter of which almost everyone is aware, but the seriousness of which comparatively few appreciate. A decline at the pres-ent rate, in the belief of the commis-sion, will within a comparatively few years practically extinguish the Mass. achusetts supply.

The causes of the decline are the overfishing in almost all localities and the pollution of harbors, such as Boston and Fall River, which has prevented the growth of what clams have remained in this area.

Under the direction of the commission an extensive survey has been made of the clam flats in the various harbors of Massachusetts, as a result of which it has been found that there are almost 11,000 acres of barren flats in the state, which should become, under proper cultural methods, valuable as producing areas.

In order to accurately observe the results of the experiments made, Mr. Belling established experiment stations at Essey, Monomoy Point, Chatham and Ply outh, where the habits and propagation of both clams and quahaugs were observed.

In each of these localities beds were constructed 1000th of an acre in size (43½ sq. ft.), in some of which were planted quahaugs and in others clams. In nearly all instances, where the beds had been properly prepared by clear-ing the area of sea grass and, other substances, and where the surface had been turned over, it was found that the Growth of the Shellfish Had Been Very

Remarkable.

In a year's time this growth varied from 800 per cent. in especially favorable localities to 400 per cent. in sections not so well located. It was found that the best growth occurred wher there was a good circulation of water and a strong fide.

The success of these experiments has led the commission to propose a plan which shall reclaim the unproductive flats of Massachusetts and bring the production to a point where there will be a distinct increase each year, instead of the present decline.

The plan has been tried with success in Essex. Here private grants of pertain flats have been made to local clam fishermen, which are absolutely under their control for a period of years, on condition of their properly cultivating these areas. It has been found that in nearly all harbors certain portions are supplied with seed clams far more thickly than this seed or "set," as it is called, can be utilized. In some instances this "set" has been as thick as 2000 to the square foot. With these sources of supply, the proprietors of the Essex grants have restocked barren areas and made them very proApril 7.

Owing to the present law that ripa-rian owners control flats down to the low-water mark, the holders of the Essex grants have been obliged to depend for the observance of their private rights in the grants on the public sentiment; as otherwise there would be nothing to prevent the general public from coming in and digging up the beds when they had become productive.

To obviate this difficulty, the com-

mission have formulated plans to introduce legislation which will give the right to each town to issue grants on flats within their respective bounda-ries to inhabitants, which shall be absolutely under the grantee's control, and the taking of clams from which would be a criminal offence. This plan 's explained by Mr. Belding as follows:

Plan of the Commission Outlined.

"In every harbor it is proposed that private grants of flats be made to individual fishermen varying in size from one to three acres, these locations to be leased for a period of years with the privilege of renewal, provided the hold-er has fulfilled the stipulated requirements of the lease. These grants should include the planting of clams, as well

as of quahaugs.

"It is not proposed to grant all of the possible clam producing area in any harbor to private holders, but other that this area should be equally divided, one-half being open to the public fishing as it now is and the other half held by private grants. In this way no one will be deprived of the right of digging, which he now enjoys and at the same time that portion which is left open to the public will be benefited by the increased set from the areas under private control.

"Upon the private grants Upon the private grants a rent should be apportioned, according to a fixed scale, determining the relative values of the grants, and this rent should be paid annually under penalty of forfeiture. The revenue received therefrom should be divided into two parts, one to go to the department having control of the shell fisheries for the maintenance of a survey, deputies and maintenance of a survey, deputies and other necessary work, while the other half should go into the town treasury of the community in which the grant is located, to be expended in restocking barren flats and otherwise developing the shell fish upon its ungranted terri-

"In order to assure that the grantee "In order to assure that the grantee shall hold the areas leased to him and to prevent the creation of a monopoly through the passing of these grants into the control of any one company or combination it is proposed that these grants be made strictly nontransferable. Neither can any holder rent them to any other individual under any consideration, whatsoever.

consideration whatsoever.

"In order to guard against confu-sion and to maintain an orderly sys-tem an accurate survey of all the tem an accurate survey of all the granted areas should be made. Every grant should be numbered, properly staked or buoyed, and a record made of the same giving the name of the owner, yearly rental and value, and this should be kept on file at the state offices. In this way the same system would be applied to the shell fisheries of Massachusetts that is now in operation in the oyster industry of many other states.

other states.
"In order to assure its fullest effi-ciency the department under whose jurisdiction this system of grants would come should be empowered with full authority, properly defined, to supervise the grants, furnish them with adequate protection by the employment of deputies to oversee the survey, allot the grants and by all means within their power develop the system, remedy its defects and strengthen its

efficiency.
"No system of shellfish grants is possible without absolute protection. The owner of a grant must be left free from outside molestation to cultivate his grant as he chooses, and he, certain with reasonably good fortune that he can enjoy the fruits of his labors. This protection, which is the greatest and most vital need of the entire system and the foundation upon which depends its whole success, must be insured by proper legislation.

"Every citizen of this commonwealth is entitled to free participation in this system, but for obvious reasons the inhabitants of any coast town should be given the first choice of grants within the boundaries of their particular town. The first grants should be given by allotment, but after the system has be-come well established, they should be issued in the order of their application. A certain number at all times should

be reserved for emergencies.

Clam Production Can Be Doubled in Five Years.

"To bring the shell fisheries of Massachusetts to their maximum produc-tion will take years, but within five years the production can be nearly doubled, if work in the right direction is begun at once. Patience will be required to overcome the obstacles which must be met, and the change must nec-essarily be gradual. At the present time the main localities from which the Massachusetts clams come are Ipswich, Newburyport and Essex. The yield of other localities is by comparison very

"Every year the difficulties of reform increase. Owing to a steadily increasing demand the natural supply is becoming smaller and smaller, and consequently the difficulty of increasing it becomes much the harder. Soon the line of possibility will be crossed, and the shell fisheries will become an in-dustry of the past. A few shell fish will always remain, but as an important industry, the shell fisheries, if no remedy is applied, in 25 years will be unknown. While there is still time, let

action be taken.

"The utilization of barren shell fish areas necessitates wise laws, good regulations and systematic methods of culture. The sea farm possesses one advantage over the ordinary farm-the soil never becomes exhausted, as the shell fish derive their sustenance from the water, using indirectly the waste

nitrates of the land.

"The value of an acre of clam flats, if properly cultivated, is about \$450 per year, for the average. Many of the more productive flats will yield a far greater amount, while others will yield less. It is possible for a good flat to yield about \$750 a year per acre, but this is only under the most favorable conditions. Such yields as these are larger for the clammer, whose average yearly income is, according to our figures, only \$400. Thus a man possessing a clam farm of 1½ to 2 acres could

make a good living.
"The shell fisheries of Massachusetts are in a chaotic state, both legally and economically. The finest natural facilities are wasted, and thousands of acres of valuable flats are allowed to lie barren merely for a lack of initiative on the part of the general public. This chaotic and unproductive state will continue to exist until both the consumer and the fisherman under-stand the true condition of affairs and realize that in the bays, estuaries and flats of Massachusetts lie as much or more wealth, acre for acre, as in the western wheat fields."

April 7.

TWO HALIBUT FARES ARRIVE.

Both Trips Uneventful but Bad Weather Prevailed.

At this port this morning are two off shore arrivals, schs. Cavalier and Paragon, with trips of fresh halibut. Both vessels report bad weather on the banks.

Sch. Cavalier made good time home from the southern edge of Grand Bank, having a head wind about all the way, except up to the last few hours of the journey, yet she made the distance in six days. It blew pretty hard all the time and she came about all the way under bank sail, the main sall being set but twice since leaving the bank. Capt. Porper, as usual. has a nice trip, 35,000 pounds of halibut, 8000 pounds of salt cod and 6000 pounds of flitched halibut, on which the vessel will make a nice stock.

Sch. Paragon, Capt. William Hermon, is here from Quero Bank, has about 18,000 pounds of hallbut, and 8000 pounds of salt cod. Like Capt. Porper, he reports an unevent-ful trip, bad weather being the only feature.

Sch. Slade Gorton, Capt. George E. Heckman, is at this port from Boston with 20,000 pounds of fresh fish to After these are taken out, Heckman will have his craft slicked up and fit her for south mackerel seining.

Sch. Clara G. Silva landed about 4000 pounds of fresh fish to the splitters yesterday afternoon.

April 7.

LOBSTERMEN OPPOSED

CHANGE.

Do Not Favor Measureme ment of Body of Lob-

sters.

Claim that Effect Would

be to Revive Former

Law.

South shore and north shore lobstermen made things lively before the committee on fisheries and game at the state house yesterday morning on the recommendations of the fish and game commission to change the method of measuring the lobster from the nine inches from snout to tail to 4 3-4 inches from the tip of the horn to the end of the body shell.

The fishermen had figured out that the result would be to wipe out the law of last year allowing them to catch the nine-inch lobster, and they swarmed in protest in consequence. To oblige Representative Curtis of Hingham, who desired to attend his committee, he was heard first in op-position to the recommendations in

the commissioners' report.

Mr. Curtis said that there was no question that a lobster which measured 4 3-4 inches on the body would measure by the present method 10 1-2 inches to the end of the tail. It would be a going back from the nine-inch law which the fishermen got last year. He couldn't see why New York, Rhode Island, Connecticut and Massachusetts should conform to the Maine measurement just to oblige the Pine Tree state. The lobster fishermen, he said, are satisfied with our law as it is, and are opposed to any change that will prevent their catch-ing the nine-inch lobster. What they do object to is being limited to 10 1-2 inches, as this bill would do if the lobster is limited to 4 3-4 inches body measurement.
He said: "I believe that the lob-

ster fishermen of Scituate, Cohasset and Hull agree with their brethren of Hingham, that any change of this character in the law would be detrimental to their business and would not conserve the lobster supply. They feel it is a hardship to the poor fishermen, hard on the pocketbook and on their trade to have these continuous changes in the lobster law,

year after year.

Claims Law Would Extend Legal Length.

Dr. George W. Field, chairman of the fish and game commission, said that by the ordinary method from the tip of the nose to the tip of the tail, it is possible to stretch that some-what. In cold weather the lobster what. shipped in ice from Maine or Nova Scotia to Boston may be a legal sized lobster when it starts, but is so con-tracted when it reaches here that it is under the legal size for this market. Maine measures 4 3-4 on the body, which is a perfectly rigid measurement. Rhode Island adopts a measurement of 4 1-8 inches on the body, which gives a nine-inch lobster on the way we now measure the lob-ster. The Maine measurement of 4 3-4 on the body will give a 10 1-4 inch lobster measured from nose to tip of tail.

Representative Crocker of Brewster "So it would length from what it now is to 10% inches on the old measurement."

Dr. Fields said it would, and asked who got the nine-inch law through? He replied "the fishermen." We object, object," was shouted in chorus by the fishermen, while Senate Chairman Keith rapped for order.

Dr. Field said: "I was against a nine-inch löbster unless the 11-inch qualification went with it. The com-mission only favored a law to allow

mission only favored a law to allow'
the taking of lobsters between 9 and
11 inches and not longer."
The doctor said that there was no
question that if they passed this law,
they would put a good many people
out of business, but there was also no
question that the lobster supply was
steadily decreasing and it wouldn't be steadily decreasing and it wouldn't be long before all the fishermen might be out of business.

Representative Curtis wanted know who was changing these lobster laws all the time—the fish and game commissioners or the fishermen?

BUSINESS.

Gloucester Isinglass

and Glue Co. Still Con-

tinuing to Take Orders.

Have Only Moved Manu-

April 8.

Dr. Fields said that the commissioners are recommending changes in their annual reports.

"Well, why don't we let the laws alone? What difference does it make what Mame does; they can go hang themselves if they want to," said the Westfield member. (Laughter.)

Dr. Fields said that the commission gives permits to fishermen to catch seed lobsters and to keep them in confinement until they are bought either by the Massachusetts commission or

by the Massachusetts commission or the United States commission. The eggs are taken to Gloucester or Woods Hole and there hatched. The fishermen are paid 25 per cent. above the market price for these lobsters. After taking the eggs the mothers are put back into the ocean. Usually the young lobster fry is liberated two or three days after it is hatched. In Rhode Island they are having fair success in keeping these young lobsters two weeks before liberating.

To Richard B. Hayes of Hull Dr. Fields admitted that the law round the Cape was never lived up to as regards lobsters. He

Would Have Made the Body Measurement Much Longer

if he had his way. For four years he had been fighting to stop the catching of the large egg-bearing lobsters. He believed there should be a close season on these small lobsters of nine

inches long.

The doctor admitted that the two, three or five years that the fishermen were waiting for the small lobsters to increase the supply the fishermen would not find their business very profitable, but after that it would greatly increase.

greatly increase.

Representative Gifford asked how the lobstermen were going to live during those two to five years.

"That's the question, boys; that's the question," shouted the Cohasset lobstermen and again order was commended. manded.

Dr. Fields said it wasn't what the fishermen wanted; they would catch all the lobsters now and never mind the by and by. He said that the 4% measurement was recommended by the convention of commissioners of New England, and not by himself.

England, and not by himself.

Commissioner John J. Donahue of Maine said that the returns from the lobster fishery of Maine are over \$2,-000,000 a year. They started with the nine-inch lobster years ago, and then because of the canning industry and the rapid decrease of the supply they made lobster canning illegal; so they adopted a legal measurement of 10½ inches.

George W. Bloomer of Chatham, in George W. Bloomer of Chatham, in opposition, stated that if the fish and game commission would pay a fair price for the seed lobster that they would have no difficulty in preserving the large egg-bearing lobsters, but the price now is only 14 cents, and that doesn't pay the fishermen.

The bill was further opposed by Mr. Benson of Plymouth, Mr. Mayhew, H. B. Kimball, Mr. MacComber of Westport and Richard B. Hayes of Hull.

April 7.

WILL SAIL THIS AFTERNOON.

Sch. Grampus Will Start on Search for Mackerel at 4 O'clock.

The United States Fish Commission sch. Grampus will sail this afternoon at 4 o'clock on her mackerel research cruise, going first to the southward, stopping at Wood's Hole, en route.

April 7.

Today's Receipts.

Sch. Cavalier, Grand Bank, 30,000 bs. halibut, 8000 lbs. salt cod, 6000 bs. flitched halibut.
Sch. Paragon, Quero Bank, 15,000
lbs. halibut, 8000 lbs. salt cod.
Sch. Slade Gorton, via Boston, 20,-

000 lbs, fresh fish. Sch. Clara G. Silva, shore, 4000 lbs.

fresh fish, Sch. Thomas S. Gorton, via Boston. Sch. Lillian, via Boston, 83,000 lbs.

fresh fish. - Sch. Alice M. Guthrie, via Boston. Sch. Muriel, via Boston.

Vessels Sailed.

Sch. Mary DeCosta, haddocking. Sch. Walter P. Goulart, haddocking.

Sch. Seaconnet, haddocking.

Sch. Minerva, haddocking,

Sch. Emily Sears, haddocking. Sch. Ida M. Silva, haddocking.

Today's Fish Market. Salt Georges cod, large, \$3.50; me-

diums. \$3.00.

diums, \$3.00.

Bank hallbut, \$ 1-2 and \$ cts. per lb. for white and gray.

Saft pellock, \$1.00; salt haddock, \$1.00; salt hake, \$1.00.

Splitting prices for fresh fish, Western cod, large, \$1.65; mediums, \$1.40; klastern cod, large, \$1.55; medium, \$1.36; cusk, \$1.50; for large, \$1.10 for medium and 50c for snappers; haddock, 60c; hake, 60c.

April 7. Trawl bank cod, large, \$3.25; medium, \$2.75; snappers, \$1.50.
Salt cusk, large, \$2.50; mediums, \$2.00; snappers, \$1.00.
Shore frozen herring for bait, \$2.00 to \$2.50 per cwt.
Round pollock, 50 cts. per cwt.
Newfoundland frozen herring, for bait, \$2.50 to \$3.00 per cwt.

Fishing Fleet Movements.

Sch. Rex, Capt. John Grady, will now haul out of haddocking and fit for south seining.

Sch. Good Luck is on Burnham's railways

railways.

Capt Robert B. Porper of sch. Cav-Capt Robert B. Porper of sch. Cavalier reports speaking schs. Tacoma and Monitor on Grand Bank.
Capt. John Williams is fitting sch. Eugenia for Rips fishing.
Sch. Alice M. Guthrie is here from Boston to put up her topmast and charming den her supmer rips.

otherwise don her summer rig.
Sch. Tattler was at Liverpool, N. S.,
Saturday and cleared.

PORT OF GLOUCESTER.

Arrived Today.

Barge Oak Hill, in tow of tug International, Philadelphia, coal.

Harbor Notes.

Sch. Thomas S. Gorton will haul out on the railways today for examination, she having struck, two trips ago, while going up Broad Sound in Boston har-bor. The craft will also paint up.

Boston.

Sch. Philip P. Manta, 10,000 haddock, 3000 cod.

Sch. Sarah, 2000 haddock, 2000 cod. Sch. M. Madeleine, 1000 haddock,

3500 cod, 3000 cusk. Sch. Raymah, 35,000 haddock, 2000

Sch. Nokomis, 6000 haddock.
Sch. Rita A. Viator, 4000 haddock.
Sch. Rose Standish, 11,000 haddock,

500 cod.
Sch. Reliance, 3000 haddock.
Sch. Massasoit.
Sch. Mary E. Silveira, 10,000 had-

ock, 10,000 cod.
Sch. Catherine and Ellen, 15,000 haddock, 12,000 cod, 15,000 hake.
Sch. Rex. 10,000 haddock, 25,000 cod.

Sch. Athena, 8000 haddock, 2500 cod, 1000 pollock.

Sch. Flavilla, 7000 haddock, 1000 cod, Sch. Flavilla, 1000 haddeds, 25,000 cod.
Sch. Josie and Phebr. 40,000 haddock, 25,000 cod.
Sch. Edith J. Silveira, 13,000 haddock, 1000 cod.
Sch. Stranger.
Sch. Belbina, P. Demingoes, 24,000 haddeck, 2000 cod.

haddock, 2000 cod.
Sch. Flora J. Sears, 15,000 haddock, 500 cod.

Sch. Louisa R. Sylva, 10,000 haddock, 3000 cod, 3000 pollock.
Sch. Helen B. Thomas.

Sch. Viking, 10,000 haddock, 1500

cod, 500 cusk.
Sch. Ethel B. Penney, 15,000 haddock; 1000 cod, 1000 pollock.

Sch. Leo, 4500 cod. Sch. Rose Dorothea, 5000 haddock,

5000 cod. Sch. Victor and Ethan, 5000 haddock,

1000 cod, 2500 pollock. Sch. James W. Parker, 50,000 had-

dock, 20,000 cod.
Sch. Elizabeth W. Nunan,
haddock, 5000 cod, 5000 cusk.
Sch. Evelyn L. Thompson, 25,000 10.000

Sch. Mary E. Stnnet, 2500 haddock, Sch. Mary E. Stnnet, 2500 haddock, Sch. Mary E. Stnnet, 2500 haddock,

400 cod.
Sch. Matchless, 15,000 haddock, 6000 cod, 5000 pollock.

Sch. Genesta, 15,000 haddock, 2000 cod, 2000 cusk.

Sch. Joseph H. Cromwell, 10,000 haddock, 2000 cod, 2000 hake, 1000 pollock. Sch. Yakima, 60,000 haddock, 15,000

cod, 10,000 hake.
Sch. Blanche F. Irving, 1000 haddock, 3000 cod.

ddock large cod, \$2,60 to \$3.50; shore market cod, \$1.50; cusk, 60c.

Portland Arrivals

Sch. Ella M. Doughty, with 12,000 pounds of fresh fish, and sch. Fanny Hayden with 7000 pounds, were at Portland Monday.
Sch. Ella M. Doughty, one of the

best known members of the Portland fishing fleet, has been recently equipped with engines the type installed on board the Doughty.

April 8.

HAD PLENTY OF WIND.

The fish commission sch. Grampus, which sailed yesterday afternoon, had plenty of wind for the start of her mackerel research cruise. She will probably make harbor at Province-

facturing Localities to Another Place. The statement in the Times of Tuesday in reference to the closing up of the factory of the Gloucester Isinglass and Glue Company did an unintentional injustice to the com-

gone out of business. That the reverse is true, and that That the reverse is true, and that the company have simply closed the factory which has been in operation on Eastern avenue, manufacturing their wares under more convenient auspices will be seen by the perusal of the following communication, which has been received from the

pany, inasmuch as the impression

might be drawn that the company had

company: To the Editor of the Times:—We wish to correct a statement that appeared in your issue of April 6, stating that the Gloucester Isinglass and Glue Company has gone out of business.

The corporation has not been dissolved, neither have we any inten-tion of asking for its dissolution. We shall continue to do business, receiving and filling orders, and our products will be of the same high quality that they have always been.

We have simply decided to remove the manufacturing for its dissolution.

the manufacturing from the old fac-tory to a place where the work can be carried on to better advantage, instead of going to great expense to re-build the plant in its old location, and the men who have for years been employed in the old factory have been transferred to the new one. There can be no question but what the business will be carried on under

better conditions than have hereto-fore surrounded it, and we feel confident that our customers will appreciate the advantage of more prompt shipment, which will be pos-sible under the new arrangements as the business is now located directly on the line of the railroad with an in-exhaustible water supply.

GLOUCESTER ISINGLASS & GLUE COMPANY.

April 8.

NOVA SCOTIA BANKERS.

Among the Nova Scotia salt bankers that have sailed thus far this season are schs. Clintonia, Parona, Hiawatha, Ambition, Maderia, Lucania, Mariner, Russell H. Prentz, Elsie M. Walters, Palatia, Mattawa, Henry L. Montague

and Earle Gray.

The new sch. Edith Marguerite, Capt. Freeman Himmelman, will soon sail from Luneuburg. N. S., on a salt trip.

BAY OF ISLANDS, N. F., NOTES.

Capts. John Hackett and Joseph Hackett have gone to Gloucester to engage in the mackerel fishery.

Two men from here captured two

large seals on the ice a few days age in the vicinity of Black Rock, Seal

There are no herring around Wood's Island at all. They seem to have moved to their headquarters, North Arm.

April 8.

POOR DEMAND FOR FRESH FISH

Offshore Trips at Boston Will Come to Splitters Here.

Poor demand and a dull market generally is still the cry at T wharf, Boston, and in consequence things are pretty slow up there again today.